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A Comparative Theoretical Study of the Role of the Public Sector in China and India

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ABSTRACT
The experience of developing countries such as China has many lessons for other developing countries such as India. It also has relevance for any country which seeks to ensure autonomy of national decision-making in an international economy that is often unfavorable for such a stance. The role of the public sector in China is one of the reasons why a characterization of the development trajectory of that country as being neoliberal would be untenable. The paper will carry out a theoretical comparison of the role of the public sector in China and India. After examining the comparative role of the public sector in both countries, the paper seeks to locate the varied experiences of the two countries in the political economy of decision-making of both countries. The paper will conclude with some suggestions for possible future roles of the public sector in both countries.

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1. Introduction

The experiences of large[1] developing countries such as China, and India have been studied from a number of perspectives (Ghosh 2011; Harris 2005; Nayyar 2010; Qi and Kotz 2019). There is a tendency to focus attention on more recent periods of both countries. Thus the period between 1949 and 1978 in China and the period between 1947 and 1991 tends to be disparaged in writings that allegedly claim that the pre-1978 phase in China and the pre-1991 phase in India were characterized by a lesser role for the "market"[2] and therefore were in some sense characterized by diminished levels of economic attainment relative to subsequent phases in both countries. Bramall (1993) and Patnaik (1995) critically evaluate the performance of China in the pre-1978 phase while the pre-1991 experience of India is discussed in (Patnaik and Chandrasekhar 1998).

However, there are important differences between the experiences of both countries. In the first phase of development of China (1949–1978) and India (1947–1991), while China had a centrally planned socialist[3] economy,[4] India had a dirigiste economy where the public sector contributed to the process of capitalist accumulation in a number of ways. Since this paper is concerned with the second phases of both countries further discussion of this theme is not undertaken. But it needs to be emphasized that the differences in the first

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phases between both countries had important implications for the subsequent trajectories of both countries[5] (Drèze and Sen 2013).

The second phases of *both* countries have been characterized as neoliberal.[6] Harvey (2007) provides a discussion of what he considers to be a neoliberal trajectory in China after 1978 while Patnaik (2016) provides an overview of the neoliberal path in India. It seems that a characterization of China's post-1978 trajectory as neoliberal is at least partly on account of a tendency to downplay the differences in the trajectory of both countries in their respective second phases (for instance in Xu 2012). A key difference in the respective second phases of both countries is the role of the public sector which is the central theme of the current paper.[7] Section 2 theoretically evaluates the role of the public sector in China and India and Section 3 concludes the paper besides highlighting some questions for subsequent research in this area.

2. On the Public Sector in China and India

The theoretical rationale of the public sector[8] in an economy depends on the social formation[9] that prevails. However, the public sector could at the very least play the following roles in an economy:

In a demand constrained economy, the activities of the public sector will help increase the level of aggregate demand. However, it is fiscal policy which has been envisaged as the policy through which aggregate demand can be influenced. Fiscal policy refers to the purchase by the government of output produced either by the private sector or the public sector. It may be financed either by borrowing or taxation or some combination of both. Here too there is a key difference between China and India. Fiscal policy in India after 1991 is constrained by the ongoing attenuation of capital controls (in a context where India remains a current account deficit economy) which has resulted in finance capital's opposition to fiscal deficits acquiring a spontaneous significance. However, this neoliberal stance has been sought to be rationalized (especially in the public domain) in terms of the logically fallacious doctrine of crowding out (Patnaik 2011). However, the policy process in China has not been significantly constrained by those who advocate the doctrine of crowding out partly because effective capital controls persist in that country.[10]

The experience of China and India in this respect is different in their respective second phases. In India, the rise of the neoliberal project has been characterized by an attenuation of the public sector and therefore in its ability to play a role in influencing the magnitude of aggregate demand. However, in China, public sector investment (and fiscal stimulus) has played a key role in the regulation of aggregate demand most notably in the period after 2007.[11]

The activities of the public sector in activities such as infrastructure (transport, communication, etc.) may reduce the cost of production for other firms in the economy.[12] If investment by these firms is guided by the motive of expected profits then these firms will invest more when the public sector expands infrastructure. But why is not possible for the private sector itself to develop infrastructure? Typically investment in infrastructure involves large fixed capital outlays, a long gestation period between investment and the onset of positive return on investment, etc. Private sector firms typically are unwilling to "wait" as long as public sector firms in this regard. Or in other words, when the expected average rates of return of infrastructural investment is compared to

those in other sectors, private sector firms tend to direct their investment towards the latter. In this regard, the greater variability of expected rates of return in infrastructural investment as compared to other sectors also plays a role in discouraging private investment in infrastructure (Patnaik 1996).

Moreover, even if the private sector operates infrastructure there could arise problems of high pricing of infrastructural services (due to short termism of private firms for instance). However, if the public sector operates infrastructure then the higher volume of output that results can be taxed (directly and indirectly) which would help recoup the expenditure on the construction of infrastructure.

Analogous to investment in infrastructure, public sector firms may also operate (unlike private sector firms) in regions with lower per capita income and lower indices of infrastructural attainment.[13]

As far as infrastructural activities are concerned there is a divergence in the experience of China and India, especially in the second phase.[14] In India, attempts were made to promote private investment in infrastructure through the route of public–private partnership.[15] This involved public sector banks or financial institutions advancing loans to private sector firms. Given the well-known issues involving gestation lags in infrastructural investment (as mentioned above) which were accentuated by the end of the economic boom in India with the onset of the world economic crisis in 2007, this process has saddled public sector banks with bad debt (also known as non-performing assets) (Chandrasekhar and Ghosh 2018).

Further asset "stripping" by private sector firms operating in the infrastructural sector though processes such as overvaluation of imported inputs has often resulted in the net worth of such private-sector infrastructural firms being lower than the bank debt of these firms.[16] Besides this, many public–private partnership infrastructural project contracts were awarded through a bidding process. In many cases, the private sector firm which won the bid sought to renegotiate the contract with the government on more favorable terms for itself.

Further, there has evolved a process in India of the government restraining public sector firms from adequately discharging their functions in order to promote their private-sector rivals. For example, the Bharat Sanchar Nigam Limited (BSNL) (which is a public sector telecommunications firm in India) was not accorded government sanction to purchase equipment on a timely basis (though BSNL had adequate asset backing to raise funds[17]) which allowed private telecommunications firms to move ahead in terms of better services or higher profits or some combination of both. Further in the recent period, private telecommunications firms have been allowed by the government to operate the 4G network while BSNL has been saddled with the 3G network since the government has not accorded sanction to BSNL to operate the 4G network. As a result, the financial viability of BSNL has deteriorated over time. However, the weakening of BSNL over time has also resulted in a geographically lopsided nature of telecommunications infrastructure in India with the quality of network and services in areas of high per capita incomes (such as conurbations) being superior to other areas.

In China, on the other hand, where the government has encouraged public sector firms to undertake infrastructural activities[18] (among others), there have been positive effects on other firms in terms of cost of production as well as quality of public services.[19] Further public sector firms have also played a key role in the restraining of regional inequality.[20]

Public sector firms can also restrain predatory practices of private sector firms in terms of price, output, quality,[21] etc., in sectors where both types of firms operate. For instance, by setting lower prices public sector firms if they have adequate production capacity (or inventories) may restrain private sector firms from charging high prices especially in those sectors where entry of new firms is either protracted or obstructed.

The possibility of public sector firms in both China and India counteracting predatory pricing practices of private sector firms abound in areas such as banking, healthcare, and education. Whenever assets owned by the government are rented out to firms (such as telecommunications spectrum) through a process of auction, the existence of public sector firms will ensure a floor rate of revenue to the government by disarming the effects of collusion among the private sector firms participating in the bidding process. However, if public sector firms are tasked by the government to exclusively focus on attempts to enhance profits then the likelihood of anti-predatory practices by public sector firms will tend to decline.

In terms of output, public sector firms may cause output of certain types to be expanded beyond what would be forthcoming from private firms in areas such as healthcare and education.[22] For the sake of clarity of argument, this process could *also* be envisaged to transpire in a setting where prices of output produced by the public sector are unchanged even when the level of output rises.

Apart from infrastructural investment by public sector firms in areas such as transport and communication in both countries (the latter more in China), the public sector in both countries (more so in China) has expanded the extent of public healthcare, public education, etc., beyond what would have been the case if these were operated exclusively by the private sector.

More often than not, labor laws are more likely to be implemented in the public sector than in the private sector (Qi and Kotz 2019). Moreover, the existence of employment in the public sector ensures that the rate of unemployment is lower than what it would have been otherwise. As a result, the bargaining power of workers rises even in the private sector. Moreover, the rise in the wage bill of public sector workers will have a strong positive effect on aggregate demand if the share of wages in output rises in the economy and if it is assumed, not implausibly, that the fraction of non-wage income that is saved is higher than the propensity to save out of wage income.

Further, if workers in the public sector are employed on a permanent basis then their wage bill (along with other expenditure of the public sector) will be able to stabilize the volatility in aggregate demand on account of other components of aggregate demand such as private investment. Moreover, the stabilizing impact of the public sector on aggregate demand by reducing volatility in the degree of capacity utilization will also stabilize employment and private investment. Moreover high and a lower level of volatility in aggregate demand is also conducive to diffusion of innovation and faster technical change (Goodwin 1990).[23]

In India, the public sector did play a role in improving the condition of workers especially in the period up to 1991. However subsequently with the onset and consolidation of the neoliberal project in India, the public sector has reduced fresh recruitment on a permanent basis (partly due to privatization) and shifted to less secure types of employment. Further, the public sector has also sought to reduce the number of those who were employed on a permanent basis through various retirement schemes. However, it

is the case that public sector workers generally obtain a higher wage rate compared to workers at comparable levels in the private sector.

In China, some smaller public sector firms have been merged with each other or larger public sector firms, leading to a reduction of public sector employment on this count. Further public sector workers are paid more than in the private sector for the same type of work (Qi and Kotz 2019). However, the larger role of the public sector in China as compared to India implies that aggregate demand, output, investment and employment in China are more stable as compared to India. It may be argued that the larger role of the public sector in China as compared to India is also a part of the explanation for the higher level of innovation and technical change in the former as compared to the latter.

Apart from the stabilizing role of public sector expenditure on aggregate demand, investment, employment and technical change there are three other ways through which the public sector can influence technical change. Firstly, if the public sector provides inputs (including infrastructure) at prices below those which the private sector would, then the average cost of firms would be lower as mentioned before. If most innovations involve a fairly large fixed cost component, then the pricing policy of the public sector by reducing the average costs of other firms, could make investment in some projects involving innovation viable, thereby increasing the rate of innovation in the economy. Moreover, innovation by public sector firms in one sector may induce innovation by firms in other sectors not only through the cost channel as mentioned above but also by increasing demand for output in other sectors which supply inputs to the former. The resulting higher degree of capacity utilization in these sectors will increase investment therein. At least a part of this investment is likely to involve innovation.

Secondly, the government may task the public sector to engage in faster innovation. This will result in faster innovation in sectors where the public sector has a monopoly. In those sectors where firms from the public sector and private sector operate, then faster innovation by the firms of the public sector will either have to be matched by its private sector rivals or the latter will be saddled with a lower share of sectoral output.

Thirdly, technology transfer may be advanced by the involvement of the public sector[24] (Tonurist and Karo 2016). In the first phase in India, when joint ventures involving metropolitan firms and domestic firms were formed, the former always sought partnerships with the second rung of domestic private firms. Given this asymmetry between the partnering firms, effective technology transfer was limited. But subsequent efforts to promote indigenous innovation was hampered by limited spending on research and development by the government of India.[25]

In the current period where finance capital is dominant in the international economy, it may be argued that many private firms have developed a shorter time horizon that militates against long-term investment that is a necessary condition for innovation (Dallery 2009). Further, if large private sector firms expect a greater rate of return from financial activities (trading, speculation, etc.) then they are unlikely to devote adequate resources to investment leave alone investment on innovation.

In China in the second phase, joint ventures with metropolitan firms have been undertaken with public sector as well as private sector firms. This has facilitated technology transfer as well as subsequent indigenous innovation. One reason for this phenomenon

is the larger expenditure on research and development by the government of China which has "crowded in" correspondingly large expenditure on research and development by Chinese firms including private firms.[26]

Even from a mainstream economics position it may be argued that public sector firms are better able to take into account external effects in production of which two are significant (Atkinson and Stiglitz 2015). When social costs are higher than private costs then private firms tend to produce more than the socially optimal level. Similarly when social benefits exceed private benefits then private firms will tend to produce less than the socially optimal level. The government may respond to this either by use of instruments such as tax, and subsidy, or enabling the public sector to produce such output wherein the latter are mandated by the government to fully incorporate external effects into their process of production.[27]

There could be at least two arguments for public sector production of such output rather than government intervention through policy instruments such as tax, and subsidy. Firstly, compliance with government regulations is easier to ensure for public sector firms. Secondly, since public sector firms tend to have a longer time horizon in their process of production, it is more likely that public sector firms would incorporate external effects not only into output but also into the trajectory of innovation. To the extent that the trajectory of innovation is at best expensive to reverse, public sector production of such output could have a persistent positive ecological impact.

3. Conclusion

The paper has tried to evaluate theoretically the comparative role of the public sector in China and India. It may be provisionally concluded that the public sector played key roles in the economic growth of both countries in the first phase (more so in China). In the second phase, the public sector continued to play a decisive role in China though its function was different from that in the first phase. In India, however, the significance of the public sector has markedly declined in the second phase which is symptomatic of the neoliberal trajectory in many countries of the world.

There remains the question of why the trajectory of the public sector and related policies diverge in China and India in the respective second phases of both countries. To cut a long argument short, it is asserted that the difference has to be located in the political economy of both countries. This would depend crucially on whether the capitalist mode of production is dominant in the social formation of both countries.

As regards India, there will be little debate on the claim that the social formation in India is dominated by the capitalist mode of production[28] and that the neoliberal project is proliferating therein in the second phase. In other words, the process of primitive accumulation of capital (of which privatization of the public sector is a key component apart from its attenuation in other respects as discussed elsewhere in this paper), has ended up compromising long term growth prospects for relatively short term private interests of capitalists.

However, there remains some debate about the social formation in China. Some have argued that China is in effect a country where the capitalist mode of production is dominant.[29] They partly base their claims on the alleged dominance of the private sector in China. However, the quantitative estimation of the relative size of the public sector and

the private sector is itself a matter of dispute (Pei 2014). Moreover, the resilience of the public sector even four decades after the second phase in China began, raises some skepticism about bland characterizations of China as a country whose social formation is dominated by the capitalist mode of production. If China is on a neoliberal trajectory then why has there has been no large scale privatization program in China?[30]

The larger question is the relation between the private sector and the public sector. In India, even in the first phase, discussion about the socialistic pattern of society notwithstanding, the public sector was employed to promote the process of capitalist accumulation as mentioned before (Das Gupta 2016). Corruption which is a euphemism for the primitive accumulation of capital is one of the ways in which capitalist accumulation proceeds when the public sector becomes a constitutive element in the process of profit making by the private sector.

Some concede that the public sector has a leading role in the Chinese economy but claim that China is a state capitalist economy (Naughton and Tsai 2015). There are two possible meanings that maybe attributed to the concept of state capitalism and it may be examined whether they are relevant for the discussion at hand. The first is that of dirigisme where the state in a social formation dominated by the capitalist mode of production uses a variety of devices including the public sector to promote the process of the accumulation of capital. But in such social formations, for instance, Meiji Japan, once the private sector was sufficiently consolidated a significant part of the public sector was privatized (Norman 2000). However, a large scale privatization program as mentioned before has not taken place in China which indicates that a characterization of the second phase of China as dirigiste is possibly not apposite.

The second meaning attributed to the concept of state capitalism is that by Lenin (1973) who identifies four types of state capitalism, namely, concessions to capitalists, cooperatives, use of capitalists as merchants and lease of state assets to capitalists. The historical context of the formulation contained in Lenin (1973) is the economic setback caused by the First World War and the Civil War and the subsequent the imperialist encirclement faced by the Soviet Union. This compelled the Soviet government to offer concessions towards capitalists. Clearly, this notion of state capitalism has little relevance to the problem of this paper namely the strong role of the public sector in the Chinese economy[31] in contrast to the Indian economy.

In this light, it may be instructive to consider the claim of BDI (Bundesverband der Deutschen Industrie, Federation of German Industries) that:

> For a long time it looked as if China would gradually move towards the liberal, open market economies of the West by integrating into the world economy and reshaping its economic system. This theory of convergence is no longer tenable. China is no longer developing structurally in the direction of a market economy and liberalism but is in the process of consolidating its own political, economic and social model. (BDI 2019)

In other words, a representative organization of the German big bourgeoisie has concluded that China will not become a traditional capitalist country.[32]

Further unlike in the case of other developing countries there are a litany of complaints about the Chinese government and the public sector such as:

The Chinese government favors public sector firms to the detriment of multinational corporations (Chow 2016).

Along the same lines, others have argued that the Chinese government promotes public sector firms at the expense of private sector firms (Liu 2019; Lardy 2019).

Leaving aside the question of whether these criticisms are tenable to future work, it may be noted that such complaints are not made about countries such as India leave alone other developing countries where the capitalist mode of production is dominant. Those who claim that China is dominated by the capitalist mode of production need to explain why it has a government which is widely criticized for not allowing the private sector to dominate the domestic economy.

This issue has also been considered by others. For instance, Meyer had raised doubts about whether the social system in China is capitalist:

> The intersection of the facts—whether China is moving toward capitalism or a centrally controlled economy—and their framing—whether pre- or post-World War II experience is judged most relevant—will determine how Western capitalism will interact with China going forward. If China continues to march toward capitalism, even a CMC (centrally managed capitalism), and the post-World War II experience remains relevant, then all may be relatively well. If, however, China reverts to a command economy, albeit a GDP-driven command economy rather than a Soviet-style centrally planned economy, then the possible outcomes, from the perspective of Western capitalism, are less pleasant. On the one hand, should China falter, as all command economies have since World War II, then so will the global economy and we may face a second round of the Great Recession. On the other hand, should China remain resilient while the West continues to falter because it ignores the lessons from the Great Depression and World War II, then Chinese influence will extend and Western capitalism may then have reached an asymptote, in which case capitalism as we know it could face a crisis of the sort anticipated by Marx and Engels (1848) a century and a half ago. It is natural to hope for the outcome best fitting our theories and that China will move toward capitalism even if it is not Western capitalism. But as social scientists we must deal with the facts, and the facts, in my judgment, do not compel the conclusion that China is today becoming increasingly capitalistic. (Meyer 2011, 16)

In this light, it is submitted that the policy of the Chinese government towards the public sector is not explicable as one which seeks to promote the proliferation of the neoliberal project in China, and leave alone the institution of the dominance of the capitalist mode of production in the country. In India on the other hand, the private sector (especially big business) is able to not only influence government policy but has in many cases taken over more or less the decision-making process in the country.[33] In China, on the other hand, the government seeks to extend a modicum of social control over even private-sector firms through the setting up of party cells, etc., within these firms.[34]

Some issues that have not been dealt with in this paper include the relation between the government and the public sector[35] (involving issues such as the degree and nature of autonomy of public sector firms), the overseas activities of public sector firms, etc., in both China and India. Along with some other issues mentioned earlier, these questions too could be useful areas for future research.

In conclusion, there are some policy lessons that both China and India may learn from the experience of the other in terms of the role and scope of the public sector apart from their own historical experience in this regard. The government of China could take the following additional steps as regards the public sector:

Firstly, the workers of each firm (both in the public sector and the private sector) may be provided a legally tenable voice in the decision-making within each firm, which would increase the extent of social control over the production process of the economy.

Secondly, taking a cue from a policy initiative that has been undertaken in India (but half-heartedly) namely the employment guarantee,[36] the government in China could institute an employment guarantee program that would contribute inter alia to reducing spatial wage inequality besides easing bottle necks in specific industries or areas.

In India, there is a need to expand the public sector in a number of areas including education, infrastructure, health, etc., besides strengthening the employment guarantee program (by making it universal). Taking a cue from the experience of China, the public sector in India needs to be placed in the center of efforts at research and development which would inter alia require an increase in the public expenditure on innovation. This will not be possible unless there is a decisive break with the neoliberal project in India.

Notes

1. Here reference is made to countries that are large in terms of both land area and population.
2. Even in a centrally planned socialist economy, the distribution of at least a fraction of the means of consumption will be through a market.
3. Any socialist economy will need to have all or a dominant fraction of means of production under public ownership. While as mentioned before, a part of the means of the means of consumption is likely to be circulated through a market, the magnitude of investment and composition is at least partly decided through a plan. The more decisive are both these factors the more likely it would be for such an economy to achieve full employment. A centrally planned socialist economy had effectively all three features mentioned herein. But the mode of functioning of such economies raised certain questions about the ability of working people to participate in the process of socialist construction which have been discussed and debated thereafter.
4. However there were important differences between the centrally planned socialist economy in the Soviet Union and China (Lin 2006).
5. Redistributive land reform in agriculture was carried out in China unlike India (except in selected areas). Further, public healthcare and public education were more extensive in China in the first phase as compared to India in the first phase.
6. A definition of neoliberalism would have taken into account the following interlinked factors: Firstly, neoliberalism involves a process of roll back of the gains made by the working people in the twentieth century whereby the bourgeois state in many countries was compelled to carry out measures to enhance the welfare system and engage in demand management more generally (Patnaik 2007); Secondly, neoliberalism represents also a rebirth of the dominance of finance capital in the world economy after the Keynesian interlude Bhaduri and Steindl (1983). Kiely (2018) provides a detailed and recent discussion of neoliberalism.
7. Xu (2012) provides an extended comparative study of public sector firms in China and India. Besides Nagaraj (2006) and Li and Cheong (2018) respectively discuss the performance of the public sector in India and China.
8. Throughout this paper, public sector firms may be read also as state owned enterprises unless an explicit differentiation has been made.
9. The concept of social formation is discussed in Wolpe (1980).
10. Kong and Feng (2019) provide a detailed discussion of fiscal policy in China in the second phase.
11. This public sector investment which was partly credit financed had played a key role in attenuating the negative consequences on China of the world economic crisis which broke out in 2007 (Liu 2009).

12. Public sector banks may also provide credit at lower rates of interest as compared to private sector banks especially to sectors which the government designates as social priorities (Chandrasekhar and Ghosh 2018).
13. Once the activities of public sector firms have sufficiently increased the levels of per capita income and infrastructural attainment in a region, private sector firms may enter in the quest for expected profit opportunities.
14. Gürel (2019) discusses the role of collective mobilization in the divergent rural infrastructural attainment in China and India.
15. Patil and Laishram (2016) advance a critique of the public–private partnership process in India.
16. This implies that the banks cannot recover the full value of their loans by selling the assets of these private infrastructural firms. Moreover when the Indian economy faces an economic slowdown, expectations about the prospects of such infrastructural firms will be adverse resulting in even lower selling price of such infrastructural firms.
17. Representatives of trade unions working in BSNL have argued that ownership of the land on which BSNL operates has not been transferred to BSNL by the government of India.
18. Trebilcock and Rosenstock (2015) point out that public–private partnerships between the government and public sector firms in China are not strictly public–private partnerships.
19. For instance, green field foreign direct investment in China has been forthcoming because of relatively high per capita incomes when compared to other developing countries, real wages with respect to labor productivity being lower compared to most alternative metropolitan locations and also because the infrastructural attainment of China compares favorably not only to other developing countries but also many metropolitan economies.
20. He and Zhu's study (2019) is a recent study of regional economic inequality in China.
21. An example will clarify the possibility of how public sector firms may enhance the quality of their services or output. Unlike private sector firms which shorten the period of use of durable means of consumption by dropping software support or availability of spare parts, public sector firms may allow the construction of durable means of consumption on a modular basis which will reduce the magnitude of waste in any period of time. This will therefore enhance the ecological viability of the production process.
22. This argument could also be explored in terms of a model of industrial organization with mixed oligopoly with one profit maximizing private firm and one public sector firm that maximizes a weighted average of profits and revenue. Here revenue is a proxy for output. It may be demonstrated that a lower profit orientation of the public sector firm in such a setting (with a linear cost function) is equivalent to a lower level of its average cost.
23. Though the degree of capacity utilization was not incorporated into (Goodwin 1990), the model presented therein can be extended to take this into account.
24. In the verbal description in footnote of an industrial organization model of mixed oligopoly it has already been mentioned a lesser profit orientation is equivalent to a decline in the average cost of the public sector firm. Further faster innovation by the public sector firm if it manifests itself as lower average cost will necessitate the private sector rival firm to respond likewise or be saddled with a lower fraction of output of that sector.
25. Corresponding to this, expenditure on research and development by the private sector in India was also relatively limited. A detailed discussion of different aspects of industrialization in India is contained in Chandrasekhar (2015).
26. Innovation has also been promoted by an innovation promoting credit policy by public sector banks in China. An analysis of innovation in China is contained in Appelbaum et al. (2018).
27. As a result the average cost of public sector firms which fully incorporate external effects may be higher (or profits lower) when compared to private sector firms if they are less forthcoming in this respect. As a result comparison of private returns of public sector and private sector firms is at best misleading.
28. Patnaik (2009) provides a recent discussion of the capitalist mode of production. In a capitalist mode of production: firstly, means of production are privately owned by capitalists;

secondly, the surplus product is extracted as surplus value from workers by capitalists and sought to be realized as money; thirdly, there is a tendency for profit rate differentials in different branches of production to be bounded. Apart from these three factors, it has also been argued that the capitalist mode of production dominates over other modes of production that it coexists with and that the capitalist mode of production has possibly an unrivalled record in necessarily undermining the ecological basis of the existence of humankind.

29. Li, Li, and Zhang (2000) argue that China is on the road towards the consolidation of the capitalist system which is equivalent to the assertion that the social formation in China is dominated by the capitalist mode of production.
30. Even the privatization process in India is less rapid than in some other developing countries (Mohan 2013). However there are definite moves towards faster privatization of the public sector in India after 2014.
31. The process of policy formulation and implementation in the second phase in China involves many complexities that cannot adequately be addressed in this paper.
32. Though it is outside the scope of this paper, this quote from BDI (2019) fully reflects the ideological predilections of bourgeois writing on this issue and is eminently contestable.
33. The mainstream economics literature characterizes this as regulatory capture (Dal Bó 2006).
34. Additional support for this submission is ascertainable from the attitude of the government of the United States of America towards the efforts for indigenous innovation in China. The government of the Unites States of America does not seem to perceive efforts at domestic innovation in countries such as Japan, and Germany as a threat to their leading status in research and development in the world. However, the government of the United States of America does perceive the process of indigenous innovation in China as a threat to its dominant position in the world economy. One possible reason for this is that the government of China is willing to place its public sector in the center of its research and development efforts. Thereby Chinese firms are not integrating into the world economy on terms that are adequate from the perspective of the government of the United States of America.
35. Some of these issues are discussed in Chen (2018) and Li (2014).
36. The experience of the employment guarantee programme of India is discussed in Drèze and Khera's study (2017). Briefly, the employment guarantee programme in India involves the offer of one hundred days of manual labor to only one adult of every rural family. In case the government cannot offer employment to some who are eligible and willing to work it is legally required to pay them unemployment allowance. However as mentioned above the implementation record of the employment guarantee program has been mixed. In the early years of policy formulation and implementation (2005–2008), the strong role of Left parties and social movements ensured a fair record of implementation. Subsequently, as the pressure on the Indian government eased in this regard, the implementation of the employment guarantee program became slack in terms of offer of employment or timely payment of wages or some combination of both.

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No potential conflict of interest was reported by the author.

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